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LETTER TO EDITOR

Eosinophilic/ T cell chorionic vasculitis

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Dear Editor,

We report a case of eosinophilic/ T cell chorionic vasculitis in a 34 years old woman, Para 2, post spontaneous vaginal delivery, at 37 weeks and 1-day gestational week. She had a BMI of 37.2 (kg/ m^2), moderately severe obese (class 2). She was diagnosed to have chronic hypertension since the age of 21 years old and was on treatment methyldopa 150 mg TDS. She delivered a baby boy weight 2.2 kilograms with good Apgar score of 9 at 1 and 5 minutes. The placenta weight was 400 grams. Histological examination of the placenta showed eosinophils and lymphocytes infiltrates in the wall of one of the fetal chorionic blood vessels (Figure 1). In addition, there was focal chronic villitis involving one cluster of 3 villi. There were also hypertensive related changes, such as increased syncytial knot formations and retention of smooth muscle in the maternal vessels, which was consistent with maternal vascular malperfusion. There was neither chorioamnionits nor funisitis. The culture study of the vaginal swab was negative.

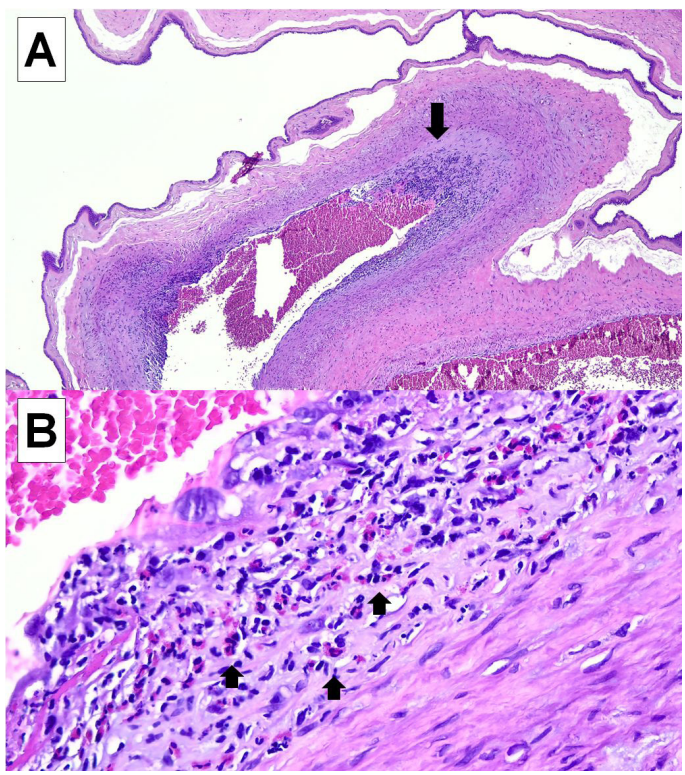

FIG. 1: Isolated chorionic blood vessels (A, arrow) at the fetal surface of the placenta demonstrating eosinophilic (short arrows) and lymphocytic inflammatory infiltrates (B).

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Eosinophilic/ T cell chorionic vasculitis (E/TCV) is a poorly understood lesion that is composed of focal involvement of fetal chorionic vessels by eosinophils and lymphocytes. The inflammation typically radiates toward the intervillous space, rather than amniotic fluid as in chorioamnionitis. It is postulated to be an immune-mediated vasculitis. Fraser et al. (2002) reported about 2 cases of E/TCV in every 1000 singleton placenta (0.185%), while another study reported about 6 cases in everyone 1000 placenta (0.6%).[1,2] The suspected number should be higher as this lesion is focal; hence, it may be missed due to limited sampling of the placenta for histological examination. Study by Jacques et al. (2011)[2] on 47 cases of ETCV comparing with 107 cases of non-vasculitis showed chronic villitis and fetal thrombo-occlusive vascular changes as the two significant histological features in E/TCV. We found focal chronic villitis in the placenta of our case. This observation suggests a possible mechanism of pathogenesis of E/TCV, as chronic villitis was found to be associated with increased T-cell chemokines and attract maternal T-cells.[1] Our previous studies found chronic villitis as one of the histological features in placenta of SAR-CoV-2 infected mother.[4] Could E/TCV be due to some unknown virus or environmental agent?[5] It does not appear to be associated with adverse fetal outcomes, except for one reported case of fetal demise.[3] Our case is associated with hypertension and obesity. Pathologist should be aware of this lesion and should not be misdiagnosed E/TCV as chorionic vasculitis, a fetal inflammatory response that accompanied chorioamnionitis.

Keywords: Eosinophilic/ T cell, vasculitis, placenta, immune-mediated

Conflict of interest: The authors declare no conflict of interest.

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